

CLAIMS

- 1 1. A non-reactive propulsion device comprising:
2 a pair of arms each rotatably supported at one end along a common
3 axis;
4 drive means rotating the arms in opposing directions so that they are
5 super-imposed twice during each full revolution of the arms;
6 unbalanced masses supported at the radially outer end of each of the
7 arms, for rotation about axes normal to the plane of rotation of the arms;
8 means for rotating the unbalanced masses about the ends of the arms in
9 timed rotation to the rotation of the two arms about the central axis, so that the
10 unbalanced masses at the ends of both arms are at a maximum distance from
11 the common axis at one point of super-position of the two rotating arms and are
12 at a minimum distance from the common axis at the other point of super-
13 position, resulting in an unbalanced linear force on the common axis.

- 1 2. The non-reactive propulsion device of claim 1, wherein the
2 means for rotating the unbalanced mass about the ends of the arms in time
3 relation to the counter-rotation of the two arms about the central axis,
4 comprises gears rotatably supported at the radially outer end of each of the
5 arms and means for rotating the gears in timed rotation to the rotation of the
6 arms.

1 3. The non-reactive propulsion device of claim 2, wherein the
2 means for rotating the gears in relation to the rotation of the two arms
3 comprises a fixed gear, centered about the common axis, which meshes with
4 the rotational gears as the arms rotate about the common axis.

1 4. The non-reactive propulsion in accordance with claim 1, further
2 including one or more rails supporting the rotating arms whereby the
3 unbalanced centrifugal forces produced by the rotation of the arms reciprocates
4 the arms along the rails, against a stop for the rotatable arms located at one end
5 of the travel.

1 5. A non-reactive propulsion device comprising:
2 a pair of arms each rotatably supported at one end along a common
3 axis, with the two arms being displaced relative to one another along the axis;
4 drive means rotating the arms synchronously in opposing directions so
5 that they assume the same angle with respect to the common axis twice during
6 each full revolution of the arms;
7 unbalanced masses supported at the radially outer end of each of the
8 arms, for rotation about axes normal to the plane of rotation of the arms;
9 means for causing the unbalanced masses to rotate in a planetary
10 manner about the common axis in timed relation to the rotation of the arms so
11 that the unbalanced masses rotate once during each full rotation of the arms
12 about the common axis;

13 the unbalanced masses being supported with respect to the arms and to
14 one another so that at one position in which the arms form the same angular
15 position relative to the common axis the unbalanced masses are at their
16 maximum extension from the common axis along the radial arms, and at the
17 radially opposite position of the elongated arms relative to the common axis the
18 unbalanced masses are at a minimum distance of radial extension from the
19 common axis, whereby the centrifugal forces produced on the common axis are
20 unbalanced in a linear direction.

1 6. The non-reactive propulsion device of claim 5 wherein the drive
2 means constitutes an electric motor powered by an electric source.

1 7. The non-reactive propulsion device of claim 6 wherein the
2 electric source constitutes a solar charged battery.

1 8. The non-reactive propulsion device of claim 6 wherein the
2 electric source constitutes a nuclear charged battery.

1 9. The non-reactive propulsion device of claim 5 supported on a
2 space vehicle.